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Reply to Office Action of February 6, 2006

### REMARKS

Claims 1 to 3 and 5 to 21 are currently pending in the present application. The Applicant notes with appreciation that claims 5, 14, 16 and 18 are allowed. Claims 1 and 10 to 13 are amended. Claims 5 and 14 and 19 to 21 are cancelled. The amendments are supported by the application as originally filed. Therefore no new matter has been added by the amendments. Reconsideration of the present application, as amended, is respectfully requested.

Claims 10 to 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Specifically, the limitation "based on a quality to be" is cited as being. Claim 10 has been amended to claim the method of claim 1 or 2, wherein: the uplink access channel includes transmission of access preambles by the secondary station, the transmission of an access preamble is offset in time by a number of chip periods corresponding to the radio channel characteristics, and the access preambles are encoded with a selected one of a plurality of signatures, and the selected signature is chosen corresponding to the radio channel characteristics. Claim 10 now clearly defines what is being signalled. Specifically, the selected signature is chosen corresponding to the radio channel characteristics.

Claim 11 has been amended to claim the method of claim 1 or 2, wherein: the uplink access channel includes a plurality of access sub-channels, an access sub-channel is selected by the secondary station for the transmission of an access preamble, and the primary station is configured to determine the timing offset and to adjust a subsequent transmit power level based on the timing offset. Claim 11 now clearly defines what is being signalled. Specifically, the selected signature is chosen based on the timing offset.

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Claim 12 has been amended to claim the method of claim 1 or 2, wherein: the uplink access channel is a CDMA channel, and the transmission of an access preamble is offset in time by a number of chip periods corresponding to the radio channel characteristics. Claim 12 now clearly defines what is being signalled. Specifically, the selected signature is based on a number of chip periods corresponding to the radio channel characteristics.

Applicant respectfully asserts that claims 10 to 12 now properly meet the requirements of 35 U.S.C. 112. It is requested that the rejection of claims 10 to 12 under 35 U.S.C. 112 be withdrawn and claims 10 to 12 be allowed.

Claims 1, 3, 7, 9, 13 and 15 stand rejected by the Action under 35 U.S.C. 103(a) as being unpatentable over European Patent WO 00/08706 to Park et al. (hereinafter "Park") in view of U.S. Patent Publication US 2005/0239491 A1 to Feder et al. (hereinafter "Feder"). Applicants maintain that neither Park nor Feder taken either alone or in combination, teach the invention as set forth in claim 1, as amended. Claim 1 now claims a method of operating a radio communication system that includes a downlink channel for transmissions by a primary station to at least one secondary station and an uplink channel for transmissions from the secondary station to the primary station, the method comprising: transmitting a first signal from the primary station on the downlink channel that includes an indication of the transmit power level used for the transmitting, determining radio channel characteristics of the downlink channel at the secondary station, based on the indication of the transmit power level, transmitting an uplink signal from the secondary station on the uplink access channel giving an indication of the radio channel characteristics, and transmitting a signal from the primary station on the downlink channel at a power level and/or bit rate which takes into account the indication of the radio channel characteristics, wherein the secondary station: retransmits an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level

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associated with the access preamble signal for which the acknowledgement signal was received.

Specifically, claim 1 amended to incorporate allowed claim 5 now claims that the secondary station retransmits an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received. Park fails to teach the retransmission of an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmitting a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received. Rather, Park simply teaches the transmission of a beacon signal from a primary station, and a second station for measuring the received power level and transmitting an indication of the received power level to the primary station. The primary power station, being aware of both the transmit power level and the received power level is then able to determine the radio channel characteristics. Park does not disclose retransmission of the preamble signal. Feder, directed to a power control system for a wireless communications system adjusts the transmit power of a wireless transmitter in relation to a number of acknowledgments expected for radio transmissions over a wireless link, also fails to disclose secondary station for retransmitting an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received.

In view of the foregoing, independent claim 1 is patentable over Park and Feder when taken either singly under 35 U.S.C. § 102 or in combination under 35 U.S.C. §

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103(a). Claims 3, 7 and 9 depend from claim 1 and add further features thereto. Thus, claims 3, 7 and 9 are patentable over the combination of Park and Feder for at least the reasons discussed. Accordingly, the rejections under 35 U.S.C. § 103(a) of claim 1 and claims 3, 7 and 9 should be withdrawn and claim 1 and claims 3, 7 and 9 should be allowed.

Applicants further maintain that neither Park nor Feder taken either alone or in combination, teach the invention as set forth in claim 13, as amended. Claim 13 now claims a radio communication system comprising: a primary station that includes a first transceiver that is configured to transmit signals on a downlink channel, at least one of the signals including an indication of a transmit power level used to transmit the signal, and at least one secondary station that includes: a second transceiver that is configured to: receive the signals from the primary station and transmit uplink signals to the primary station on an access channel, and a measuring device that is configured to determine radio channel characteristics of the downlink channel based on the indication of the transmit power level, wherein at least one of the uplink signals includes an indication of the radio channel characteristics, and the primary station is configured to determine the power level and/or bit rate of subsequent downlink signals in dependence on the radio channel characteristics, wherein the at least one secondary station includes an encoder that is configured to transmit access preamble signals as CDMA signals, and to offset in time an access preamble signal by a number of chip periods corresponding to the radio channel characteristics.

Specifically, claim 13, amended to incorporate allowed claim 14 now claims that the at least one secondary station includes an encoder that is configured to transmit access preamble signals as CDMA signals, and to offset in time an access preamble signal by a number of chip periods corresponding to the radio channel characteristics. Park fails to teach a secondary station includes an encoder that is configured to transmit access preamble signals as CDMA signals, and to offset in time an access preamble signal by a number of chip periods corresponding to the radio channel characteristics. Feder also

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fails to teach a secondary station that includes an encoder that is configured to transmit access preamble signals as CDMA signals, and to offset in time an access preamble signal by a number of chip periods corresponding to the radio channel characteristics.

In view of the foregoing, independent claim 13 is patentable over Park and Feder when taken either singly under 35 U.S.C. § 102 or in combination under 35 U.S.C. § 103(a). Claim 15 depends from claim 13 and adds further features thereto. Thus, claim 13 is patentable over the combination of Park and Feder for at least the reasons discussed. Accordingly, the rejections under 35 U.S.C. § 103(a) of claim 13 and claim 15 should be withdrawn and claims 1 and 13 should be allowed.

Claims 2, 7, 9 to 10 and 17 stand rejected by the Action under 35 U.S.C. 103(a) as being unpatentable over Park in view of U.S. Patent No. 6,434,365 to Knutson et al. (hereinafter "Knutson"). Applicants maintain that neither Park nor Knutson taken either alone or in combination, teach the invention as set forth in claim 1, as amended. As discussed, claim 1 has been amended to claim that the secondary station retransmits an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received. Park fails to teach invention of claim 1 for the reasons discussed above. Knutson, directed to a wireless telephone system having a plurality of wireless, battery-powered handsets and a base unit, the base unit having a base transceiver, also fails to disclose secondary station for retransmitting an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received.

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In view of the foregoing, independent claim 1 is patentable over Park and Knutson when taken either singly under 35 U.S.C. § 102 or in combination under 35 U.S.C. § 103(a). Claims 2, 7 and 9 to 10 depend from claim 1 and add further features thereto. Thus, claims 2, 7 and 9 to 10 are patentable over the combination of Park and Knutson for at least the reasons discussed. Accordingly, the rejections under 35 U.S.C. § 103(a) of claim 1 and claims 2, 7 and 9 to 10 should be withdrawn and claims 1, 2, 7 and 9 to 10 should be allowed.

Claim 17 is directed to a primary station comprising a transceiver that is configured to transmit signals on a downlink channel to at least one secondary station, and receive an uplink access channel signal that includes an indication of a transmit power level associated with the signal, and a measuring device that is configured to determine a power level and/or bit rate to transmit downlink signals to the at least one secondary station based on the indication of the transmit power. Applicants maintain that neither Park nor Knutson taken either alone or in combination, teach the invention as set forth in claim 17. As acknowledged by the action, Park fails to teach an uplink access channel signal including an indication of a transmit power level associated with the signal. Knutson also fails to teach an uplink access channel signal including an indication of a transmit power level associated with the signal. Knutson is cited based upon a non-analogous example of transferring a data packet including a 4-bit power level field. However, Knutson fails to teach an indication of a transmit power level associated with the signal. Accordingly, the combination of Park and Knutson fails to teach the invention as claimed in claim 17. Accordingly, the rejections under 35 U.S.C. § 103(a) of claim 17 should be withdrawn and claim 17 should be allowed.

Claim 6 stands rejected by the Action under 35 U.S.C. 103(a) as being unpatentable over Park in view of Knutson and further in view of European Patent EP 0913957 A1 to Cao et al. (hereinafter "Cao"). Applicants maintain that neither Park nor Knutson nor Cao, taken either alone or in combination, teach the invention as set forth in claim 6, depending from amended claim 1. As discussed, claim 1 has been amended to

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claim that the secondary station retransmits an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station, and in response to the receipt of an acknowledgement signal, transmits a message containing an indication of the power level associated with the access preamble signal for which the acknowledgement signal was received. The combination of Park and Knutson fails to teach the invention of claim 1, as discussed. Claim 6 depends from claim 1 and adds further features thereto. Specifically, claim 6 claims that the secondary station retransmits an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station each transmission of the access preamble signal including an indication of its power, and the primary station determines the radio channel characteristics based on the power and the access preamble signal received and acknowledged. Cao fails to disclose the invention of claim 1, let alone a secondary station for retransmitting an access preamble signal at successively increasing power levels until an acknowledgement signal is received from the primary station each transmission of the access preamble signal including an indication of its power, and the primary station determines the radio channel characteristics based on the power and the access preamble signal received and acknowledged, as claimed in claim 6.

In view of the foregoing, independent claim 6 is patentable over Park and Knutson and Cao when taken either singly under 35 U.S.C. § 102 or in combination under 35 U.S.C. § 103(a). Accordingly, the rejections under 35 U.S.C. § 103(a) of claim 6 should be withdrawn and claim 6 should be allowed.

Claims 6 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Knutson and further in view of Cao, as applied to claims 2, 7, 9 to 10 and 17 above. Claims 6 and 8, depending from claim 1 and adding further features thereto are patentable over the cited combination for at least the reasons discussed with respect to claims 2, 7, 9 to 10 and 17 above.

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Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Feder, as applied to claims 1, 3, 7, 9, 13 and 15 above. Claim 8, depending from claim 1 and adding further features thereto, is patentable over the cited combination for at least the reasons discussed with respect to claims 1, 3, 7, 9, 13 and 15 above.

Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Feder, as applied to claims 1, 3, 7, 9, 13 and 15 above, and further in view of Knutson. Claim 10, depending from claim 1 and adding further features thereto, is patentable over the cited combination for at least the reasons discussed with respect to claims 1, 3, 7, 9, 13 and 15 above.

Claims 19 to 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cao in view of Knutson. Claims 19 to 21 are cancelled. Accordingly the rejection of claims 19 to 21 under 35 U.S.C. 103(a) as being unpatentable over Cao in view of Knutson is moot.

### **Conclusion**

In view of the foregoing, Applicant respectfully submits that all claims presented in this application are currently in condition for allowance. Accordingly, Applicant respectfully requests favorable consideration and that this application be passed to allowance.

Should any changes to the claims and/or specification be deemed necessary to place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned to discuss the same.



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Applicant's representative believes that this response is being filed in a timely manner. In the event that any extension and/or fee is required for the entry of this amendment the Commissioner is hereby authorized to charge said fee to Deposit Account No. 14-1270. An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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